



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

MAY 12 2005

4WD-RCRA

R. Bruce Scott, P.E., Director
Division of Waste Management
Kentucky Department for Environmental Protection (KYDEP)
14 Reilly Road
Frankfort, Kentucky 40603

SUBJ: Compliance Evaluation Inspection (CEI)
A.K. Steel Corporation - Coke Plant
EPA ID No. KYD 005 013 032

Dear Mr. Scott:

On November 16, 2004, the U.S. Environmental Protection Agency (EPA) and the Kentucky Department for Environmental Protection (KYDEP), conducted a Resource Conservation and Recovery Act (RCRA) CEI at A.K. Steel Corporation - Coke Plant, in Ashland, Kentucky, to determine its compliance status with RCRA. Enclosed is the EPA RCRA Inspection Report, which indicates that violations of RCRA were discovered.

If you have any questions regarding this matter, please contact William Kappler, of my staff, by phone at (404) 562-8498 or by e-mail at kappler.william@epa.gov.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Doug McCurry".

Doug McCurry, Chief
North Enforcement and Compliance Section
RCRA Enforcement and Compliance Branch

Enclosure

cc: Karen Glancy, KYDEP, Morehead

Routing and Transmittal Slip		May 4, 2005
To:	Initials	Date
Kappler	WEP	5/4/05
McCurry		

Re: A.K. Steel Corporation – Coke Plant State Cover Letter
KYD 005 013 032

REMARKS:

cc: Karen Glancy
Supervisor
Kentucky Department for Environmental Protection
200 Christy Creek Road, Suite 2
Morehead, KY 40351

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5/12
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Routing and Transmittal Slip		May 4, 2005
To:	Initials	Date
Kappler	<i>[Signature]</i>	5/4/05
McCurry	<i>[Signature]</i>	5/6/05

Re: A.K. Steel Corporation – Coke Plant CEI Report & Cover Letter
KYD 005 013 032

REMARKS:

cc:

R. Bruce Scott, P.E., Director
Division of Waste Management
Kentucky Department for Environmental Protection (KYDEP)
14 Reilly Road
Frankfort, Kentucky 40603

Karen Glancy
Supervisor
Kentucky Department for Environmental Protection
200 Christy Creek Road, Suite 2
Morehead, KY 40351

MAILED

[Handwritten signature]



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MAY 12 2005

4WD-RCRA

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Rick Massey
Manager Environmental Affairs
A.K. Steel Corporation - Coke Plant
P.O. Box 191
Ashland, Kentucky 41105-0191

SUBJ: Compliance Evaluation Inspection (CEI)
A.K. Steel Corporation - Coke Plant
EPA ID No. KYD 005 013 032

Dear Mr. Massey:

On November 16, 2004, the U.S. Environmental Protection Agency (EPA) and the Kentucky Department for Environmental Protection (KYDEP), conducted a Resource Conservation and Recovery Act (RCRA) CEI at A.K. Steel Corporation - Coke Plant, in Ashland, Kentucky, to determine its compliance status with RCRA. Enclosed is the EPA RCRA Inspection Report, which indicates that violations of RCRA were discovered. A copy of this report has also been forwarded to KYDEP.

If you have any questions regarding this matter, please contact William Kappler, of my staff, by phone at (404) 562-8498 or by e-mail at kappler.william@epa.gov.

Sincerely yours,

A handwritten signature in black ink, which appears to read "Doug McCurry", is written over the typed name.

Doug McCurry, Chief
North Enforcement and Compliance Section
RCRA Enforcement and Compliance Branch

Enclosure

cc: R. Bruce Scott, KYDEP, Frankfort
Karen Glancy, KYDEP, Morehead

RCRA Inspection Report

1) Inspector and Author of Report

William Kappler
Environmental Scientist
RCRA Enforcement and Compliance Branch
EPA Region 4, AFC - 10th Floor
61 Forsyth Street
Atlanta, Georgia 30303
(404) 562 - 8498

2) Facility Information

A.K. Steel Corporation - Coke Plant
40th Street and Winchester Avenue
Ashland, Kentucky 41105
(606) 329-7258

EPA ID No. KYD 005 013 032

Mailing Address

P.O. Box 191
Ashland, Kentucky 41105-0191

3) Responsible Official(s)

Mr. Rick Massey, Manager Environmental Affairs

4) Inspection Participants

David M. Porter, A.K. Steel Corporation
Karen Hall, Kentucky Department for Environmental Protection
William Kappler, U.S. Environmental Protection Agency - Region 4

5) Date of Inspection

November 16, 2004

6) Applicable Regulations

40 C.F.R. Parts 260 - 270; and Title 401 Kentucky Administrative Regulations (KAR) Chapters 30, 31, 32, 34, and 35; RCRA Sections 3005 and 3007, 40 Code of Federal Regulations (CFR) Parts 260, 261, 262, 268.

7) Purpose of Inspection

On November 16, 2004, William Kappler of the U.S. Environmental Protection Agency (EPA) and Karen Hall of the Kentucky Department for Environmental Protection (KYDEP) inspected A.K. Steel Corporation - Coke Plant (AKS) to determine the facility's compliance status with the Resource Conservation and Recovery Act (RCRA) and the Commonwealth of Kentucky regulations. AKS Coke representatives accompanied inspectors.

8) Facility Description

AKS Coke is located at 40th and Winchester Avenue, Ashland, Boyd County, Kentucky. AKS employs 225 people. AKS operates Monday through Friday, 24 hours per day. The City of Ashland provides AKS Coke with sanitary sewer and potable water services. AKS owns the property, which consists of 138 acres, occupying the western bank and floodplain of the Ohio River, approximately one mile east of Ashland, Kentucky. Facility operations are conducted within numerous building consisting of several hundred thousand square feet of manufacturing and office space. AKS Coke is permitted to pump water from the Ohio River for its consumptive use. The facility operates a waste water treatment plant (WWTP) to treat industrial wastewater. Eighty percent of the treated water is pumped to the Ohio River. The remaining 20 percent is discharged to the City of Ashland municipal sewer system. The SIC code for AKS Coke is 3312 and the NAICS code is 33111. AKS is also a used oil generator.

AKS Coke operations consist of a coal stock pile area, coal handling area, rail car quench area, sulfiban process hazardous waste storage tank area, coke battery, tar sludge decanter, tar sludge decanter recycling area, hazardous waste roll-off storage area, waster water treatment plant, LGA dike and the medical/dispensary building.

AKS Coke operations were initiated in 1920 under the ownership of Semet Solvay Company, and later purchased by Allied Chemical. In 1980, the facility was purchased by Armco Steel, Inc., a steel and diversified services company. Armco Coke L.P. was a unit of Armco Steel, L.P., a Delaware limited partnership created in 1989 between Armco, Inc. and Kawasaki Steel Corp of Japan. Armco transferred substantially all of the assets, properties and business of the Armco Eastern Steel Division. This included the Ashland Steel and Coke Plants. Armco currently has a 55 percent interest and the partners have equal control in operating the joint venture. Armco Steel Co. L.P. became a private stockholder owned corporation in May 1994 and took the name A.K. Steel Corporation. It is a totally separate company with no other affiliations nor owners.

The AKS Coke facility produces metallurgical coke from the carbonization of bituminous coal, largely for capture and use in steel production. Coking products include coke oven gases, crude coal tar, light oil, ammonia, sulfur and tar acids (photographs 14 & 15).

The facility processes selected coals, blended to obtain the correct balance of low ash, sulfur and desired volatility. Volatility is important in controlling potentially damaging oven coking pressures and coke yield.

AKS Coke produces coke from the carbonization of coal in coke batteries. A coke battery consists of a series of coke ovens arranged side by side. The coke plant has two batteries, identified as the number 3 battery, consisting of 78 ovens and the number 4 battery, consisting of 70 ovens. Each oven is constructed as a narrow, slot-type chamber lined with silica brick and constructed with a removable self-sealing door. The walls between the ovens have heating flues, in which gas from the coking process is burned to provide heat for carbonization. At the top of each oven, refractory-lined standpipes facilitate the conveyance of volatiles to a horizontal collecting main, which is connected to the by-product recovery plant.

Coal arrives by truck or railcar; where it is mixed, crushed and stored in silos located at the west end of the coke batteries. The prepared coal blend is conveyed to a bin, called a "Larry Bin", located at the east end of

*7000 gal H₂O per quench
- showing the best method*

a coke battery. The Larry Bin feeds the coal to a Larry railcar traveling on rails along the top of the battery ovens. The coal is dumped from the Larry railcar into selected ovens through oven charging holes. Coke oven temperature reaches 1,200 degrees centigrade and the carbonization process currently occurs over an 18 to 20 hour period. At the end of each coking cycle the removable self-sealing doors are opened and a pusher ram, on the pusher side of the battery, moves the coke into a rail car on the opposite side of the battery. The rail car transports the hot coke to a quenching station where water is sprayed on the coke to cool it below the ignition point. The rail car and coke is allowed to drain, then screened and stored in the coke loading building. The quench water is discharge to a containment ditch, connected to a quench basin, where solids settle out of suspension. The water is stored for reuse in the quench operation. The solids are recovered and reclaimed in another area of the facility. A Minister-Stein pushing emission control system; consisting of hoods, ducts, venturi scrubber and solids separation system, is used to recover fine coke breeze during the push.

Production capacity of battery number 3 and number 4 is approximately 1,165,500 tons of coke per year, a yield of approximately 85 percent, based on the coal input. Most of the coke is produced for use by A.K. Steel Corporation West Works Plant. Some of the coke is transported to A.K. Steel's Middletown, Ohio steel mill.

Raw coke oven gas from the batteries is cooked to condense tar and other liquids by spray cooling with flushing liquor, an aqueous condensate of salts of ammonia. The mixture of tar and liquor flows into a tar liquor decanter, where tar sludge (K087) accumulates on the bottom of the decanter. Part of the liquor is recycled back for spray cooling and the remainder of the liquor is reclaimed in an ammonia recovery plant. The K087 sludge is transported to a tar sludge decanter recycling area where the tar and coal are blended and added to the coal feed going into the batteries.

Ammonia formed during the coking process is present in both the vapor phase and in solution (liquor). The ammonia present in the liquor is released in an ammonia still, combined with the original gaseous ammonia, and absorbed by water in absorber towers. Aqueous ammonia, a 30 percent \pm solution, is sold to companies that manufacturer nitrogen fertilizer.

Weak liquor (1 percent or less of concentrations of ammonia) containing phenolics are treated with coal tar light oil by counter current flow. The aqueous phase, dephenolized weak liquor is sent to the ammonia stills, where dissolved gas, rich in carbon dioxide is removed. This process is called "Sour Gas Production" (SPG). The light oil solvent phase is treated with caustic in order to extract phenol as sodium phenolate. Current practice is to sell this sodium salt.

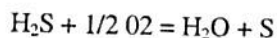
The remaining light oil in the coke oven gas (COG) consisting of benzene, toluene, and xylene (BTX), plus heavier aromatics, is recovered by scrubbing with wash oil in packed towers. The rich oil (rich in light oil) is sent to stripper towers to remove the light oil, which is sold principally to Ashland Oil, Inc. for BTX production. The stripped wash oil is recycled for reuse in the process.

The COG tail gas, which results from the scrubbing, is processed along with SPG in a Sulfiban Monoethanolamine (MEA) unit to remove hydrogen sulfide, hydrogen cyanide, organic sulfur and some carbon dioxide, prior to entry into the fuel gas system of both the AKS Coke and A.K. Steel Corporation Westworks Plants.

In this process, the tail gas is sent through two parallel contactor towers, where the gas is scrubbed with MEA solution to remove hydrogen sulfide. The rich amine solution is filtered in a cartridge-type case and next processed through a recovery column, heated by a steam reboiler, where hydrogen sulfide is released as hydrogen sulfide rich gas. The gas is sent to a Claus Process Sulfur Plant. The recovered MEA is filtered through cartridge-type filters and returned to the contactor towers. Periodically, the filters generated in both filter systems have been determined to be hazardous waste exhibiting a toxic characteristic, due to the presence of chromium. Therefore, the filters are managed as a D007 hazardous waste. There are 760 filters in the system, which are periodically removed. The filters are accumulated in a roll-off box for off-site disposal through Laidlaw Environmental Services.

Prior to entering the Claus Process Sulfur Plant, the hydrogen sulfide rich gas is mixed with gaseous ammonia from a stripper in the Sulfiban MEA plant, along with steam and air. After preheating, this mixture is processed as hydrogen cyanide (HCN) in reactor R201, containing a bauxite catalyst. The bauxite catalyzes the decomposition of HCN, by controlled oxidation and hydrolysis, to ammonia and carbon dioxide. A pair of swing reactors is used, so that one operates while the other is brought off line to remove the spent catalyst. The spent catalyst is disposed of at the Green Valley Subtitle D Landfill.

The function of the Claus Unit is to convert hydrogen sulfide to elemental sulfur, by means of thermal and catalytic oxidation. The equation for the overall reaction is:



After leaving a thermal oxidation furnace, where up to 60 percent of the Claus Reaction takes place, the gases are cooled to condense the sulfur and next subjected to four successive catalytic stages in reactor R301A. This bauxite catalyst, when spent, is also disposed of at the Green Valley Subtitle D Landfill. Final tail gas is burned at 650 degrees Centigrade.

9) Findings

Coal Stock Pile Area

Coal is transported to this area by rail car and stored in large piles on the unpaved ground. The coal is transported to the coal handling area and stored in silos prior to processing (photograph 1).

Coal Handling Area

The coal is stored in four large silos based on the composition of the coal. The ground in this area is covered with a concrete base. The coal is next mixed using a computer modeling program, which determines the best blend and balance for processing in the coke ovens. The coal is mechanically conveyed to the batteries to begin the coking process.

The inspectors observed a one to two inch thick layer of coal dust accumulating on the ground surrounding the four silos located in the Coal Handling Area. Inspectors were told that on occasion AKS Coke uses a Bobcat fitted with a front end bucket to recover the coal dust for reuse.

Storm water generated from the Coal Handling Area is directed to a concrete basin where the solids settle by gravity. The effluent from the basin is discharged to a storm water retention area located next to the concrete basin. Solids were last removed from these systems in 1990.

Rail Car Quench Area

Hot coke removed from the ovens is accumulated in a rail car. The rail car is transferred to a quenching station where an exact amount of water is used to quench the coke below the ignition point. The water is computer controlled and delivered through a nozzle connected to a high pressure water line. The water is discharged to a containment sump and pumped through a series of baffles to filter solids prior to reuse of the water.

Monoethanolamine (MEA) Hazardous Waste Storage Tank

Waste MEA is accumulated in this 6,000 gallon aboveground tank. The hazardous waste is generated during the Sulfiban process. Inspection of the tank found that it was labeled with the words hazardous waste marked as D007 and D038 and marked with the date 11/4/04. No apparent RCRA violations were observed concerning the tank system (photographs 2 & 3).

Battery Number Three Coke Ovens

AKS Coke's ovens are constructed side by side into two batteries. These ovens are delegated as battery number three and battery number four.

Coke oven gas leaving the coke ovens enters a collecting main and is sprayed with process water (also known as flushing liquor), to condense tar from the gas. The flushing liquor and condensed tar flow to two tar decanters for separation. The coke oven gas which subsequently leaves the collecting main flows to primary coolers where it is cooled and additional tar is removed. The oven gas then flows through an electrostatic precipitator where the remaining tar mist is collected. Tar and water collected from the primary coolers and electrostatic precipitators are routed back to the tar decanters.

Inspection of battery number three found a continuous plume of light brown smoke released from the top half of the closed door on the pusher side of oven 39. Inspectors further observed, when the battery's number 39 oven door was opened, on the pusher side, a thick dark brown plume being released into the air lasting approximately ten seconds (photographs 4, 5, 6 & 7).

Battery Number Four Coke Ovens

Inspection of battery number four found no discrepancies.

Tar Sludge Decanter Area

The tar decanters serve as a settling basin to slow down the movement of tar and liquor, which allows gravity separation. Additionally, other fine coal related materials entrained in the tar and liquor also settle out. Inspectors observed that the decanters are large rectangular covered steel tanks. Tar and flushing liquor flow to a decanter through a trough slowing down the mixture and distributing the feed to the decanter. The mixture overflows the trough and enters the main decanter compartment. Once inside the decanter, tar and sludge settle from the ammonia liquor. Sludge settles to the bottom of the decanter while the tar settles in a layer above the sludge. The liquor floats on top of the tar. The decanter is outfitted with an overflow weir that allows tar to be drawn off into connecting lines carrying it to a tar transfer tank. The tar is sold as a product.

Tar sludge (K087) is recovered from the very bottom of the tank by an endless chain-drag scraper that

continuously removes the sludge into a trough and then into portable steel boxes. The boxes are covered to prevent spillage and then picked up by a lug truck, transporting the tar sludge to the recycling pad for processing prior to recycling back to the batteries.

The tar sludge is not a solid waste because it meets the exclusion in 40 CFR 261.4(a)(10). Inspection of this area found no discrepancies.

Tar Sludge Decanter Recycling Area

Tar sludge transported to the recycling area is managed in a concrete sump and pad area. The sludge mixing pad consists of a collection sump where the tar sludge is staged and a mix pad where the sludge is blended with coal in a pug mill. The dimensions of the sump are 33 feet 7 inches by 76 feet 8 inches. The depth of the mix pad sump at the north wall is 2 feet 6 inches and slopes to a depth of 8 feet 10 inches at the south wall. The tar decanter sludge is mixed with coal stock at a ratio of 12 tons of coal per one ton of tar decanter sludge. The coal /TDS mixture is transported directly from the mix pad to the coal handler area. The coal/sludge mixture is unloaded onto a conveyor system and placed in storage bins with the other coal at the coal handler unit. The coal is fed from these bins directly to the coke oven batteries for charging in the coke ovens. Any surface water or rainwater at the tar decanter sludge mix pad is removed by a vacuum truck and transported to the BH tar decanter sump and recycled through the tar refining system (photographs 8, 9, 10 & 12). Inspection of this area found no discrepancies.

Hazardous Waste Roll-Off Storage Area

This area is located adjacent to the tar sludge decanter recycling area. Hazardous waste filters and personnel protective equipment are accumulated in the roll-off for less than 90-days. Inspection of the roll-off container found it was labeled as hazardous waste (K087), closed and marked with the date 9/30/04 (photograph 11). Inspection of this area found no discrepancies.

Wastewater Treatment Area (WWTP)

AKS Coke's WWTP treats weak ammonia liquor generated from the coke production. Effluent liquor discharged from the acid separation process received at the head works of the WWTP is initially steam stripped. The wastewater pH is adjusted using caustic soda. The wastewater is steam stripped a second time. The ammonia off-gas generated from steam stripping is incinerated. The wastewater is next processed through heat exchangers and to an equalization tank. The wastewater is next processed for cyanide destruction in a series of five tanks. In tank one the pH is decreased by adding pickle liquor. Tank two is used as a holding tank to allow retention time. In tank three the wastewater aerated. In tank four the pH is increased using soda ash. In tank five a polymer is added to promote settlement of solids for water clarification. Effluent from the clarifier is discharges to a biological system for additional treatment. Treated effluent is discharged to the City of Ashland municipal sewer system and to the Ohio River. Solids generated during the clarification step are processed using a belt press generating a dewatered WWTP cake. The WWTP cake is transported to the Green Valley Subtitle D landfill (photograph 13). Inspection of this area found no discrepancies.

LGA Dike Area

The LGA dike is constructed of concrete and is located under the ammonia washers. The ammonia washers remove the ammonia from the coke gas. The ammonia liquor is accumulated in the dike prior to being pumped to the tar decanter for use. The ammonia liquor enhances the active separation process in the tar decanter. Inspection of this area found no discrepancies.

Medical Office/Dispensary Area

This area performs annual physical exams, coke and benzene monitoring and dispenses over the counter (OTC) medication. One crash cart is kept stocked with epinephrine solution and nitroglycerin tablets. Out of date medication is disposed down the sink to the City of Ashland municipal sewer system. Needles are managed for disposal in a sharps container. The majority of OTC medication consists of aspirin, ibuprofen, antibacterial medication and isopropyl alcohol. Inspection of this area found no discrepancies.

10) Waste Management Practices

Hazardous waste is accumulated in the hazardous waste tank and container storage areas. Hazardous waste satellite accumulation drum areas and used oil drum accumulation areas are established when needed.

Coal dust is recovered and used as feedstock in the coke ovens.

Quench water is discharged to a containment sump and filtered for reuse.

Tar sludge (K087) is recovered from the tar decanter and transferred to the recycling area. The sludge is blended with coal in a pug mill for reuse in the coke ovens.

Hazardous waste filters and personnel protective equipment are accumulated in the roll-off for less than 90-days prior to off-site shipment to a treatment storage or disposal facility (TSDF).

AKS Coke's WWTP treats weak ammonia liquor generated from the coke production. Treated effluent is discharged to the City of Ashland municipal sewer system and to the Ohio River. Solids generated from treatment operations in the WWTP are processed using a belt press generating a dewatered cake. The cake is transported to the Green Valley Subtitle D landfill.

Waste epinephrine solution and nitroglycerin tablets are disposed to the City of Ashland municipal sewer system.

AKS Coke used the following hazardous waste companies for transporting, treating, storing or disposing of hazardous waste.

Enviroserve, J.V. – OHD987050564
General Environmental Management – OHD004178612

11) Record Review

Manifests

Inspectors reviewed several manifests for shipments of hazardous waste from January 2004 to November 2004. Inspectors observed that the manifests were not completed with handling codes and the manifests were not accompanied with land disposal restriction notices, which is required under Kentucky rule for each manifested shipment of hazardous waste.

AKS Coke is in violation of 40 CFR 262.20(a)/401 KAR 32:020, Section 1(1), which requires that a generator who transports, or offers for transportation, hazardous waste for off-site treatment,

storage, or disposal must prepare a manifest, OMB control number 2050-0039 on EPA form 8700-22 and, if necessary, EPA form 8700-22A, according to the instructions included in the appendix to part 262.

Contingency Plan

Inspectors reviewed the contingency plan, which listed emergency coordinators. The contingency plan appeared satisfactory.

Arrangements with Local Authorities

AKS Coke appeared to make arrangements to familiarize the local fire, police departments and the local hospital. These entities consist of the Ashland fire and police departments, Westwood fire department, Russell fire department, Kings Daughter and Bellefonte hospitals. However, a record showing the contingency plan was issued to the local authorities other than the police was not maintained.

AKS Coke did not adhere to a condition for exemption from RCRA § 3005 given in 40 CFR 265.37/401 KAR 34:030, Section 7 as incorporated by 40 CFR 262.34(a)(4)/401 KAR 32:030 Section 5(1)(d), for not maintaining documentation and/or describing agreements with the local authorities. As such, AKS Coke is illegally storing hazardous waste in violation of RCRA § 3005.

A copy of the contingency plan was issued to the Boyd County Local Emergency Planning Committee.

Weekly Written Inspection Logs

AKS Coke conducts daily written container and tank inspections in areas where hazardous waste is accumulating for less than 90-days. Inspectors reviewed inspection records from January 2004 to November 2004 for the MEA storage tank, MEA secondary containment area and tar sludge roll-off container. The records appeared to be satisfactory.

Annual Report

AKS Coke submitted the 2003 annual report to the Boyd County Judge Executive Office. The annual report appeared satisfactory.

Personnel Training Records

Training records provided by AKS Coke showed basic RCRA training was given to employees covering the handling of hazardous waste relevant to the employee's position. The topics covered in 2002 and 2003 consist of contingency plan and emergency procedure implementation, personnel protective equipment and response to spills and disposal of hazardous waste materials. Mr. David Porter was given training in Hazardous Waste Management in April 2003.

The review of AKS Coke employees training records required to be maintained found information was lacking in regard to the employee name, job title and a specific job description relevant to the employee's hazardous waste job duties.

AKS Coke did not adhere to a condition for exemption from RCRA § 3005 given in 40 CFR 265.16(d)(1-4)/401 KAR 35:020, Section 7(4)(a-d), as incorporated by 40 CFR 262.34(a)(4)/401 KAR 32:030 Section 5(d), which requires the owner or operator to maintain records in accordance with 40 CFR 265.16(d)(1-4). AKS Coke did not maintain records for the employees given hazardous waste training. As such, AKS Coke is illegally storing hazardous waste in violation of RCRA § 3005.

A.K. Steel Corporation - Coke Plant
November 16, 2004

Land Disposal Restriction Notice

Inspectors observed that the manifests were not accompanied with land disposal restriction notices, which is required under Kentucky rule for each manifested shipment of hazardous waste.

AKS Coke did not have written records showing that LDR notices were provided with manifested shipments of hazardous waste in 2004.

AKS Coke is in violation of 401 KAR 37:010, Section 7(1)(a), which requires that if a generator determines that he is managing a restricted waste under 401 KAR Chapter 37 and the waste does not meet the applicable treatment standards set forth in 401 KAR 37:040 or exceeds the applicable prohibition levels set forth in Section 3 of 401 KAR 37:030 or KRS 224.46-520, with each shipment of waste the generator shall notify the treatment or storage facility in writing.

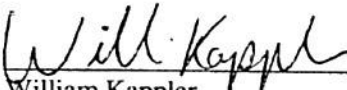
Recommendations

1. Unused out of date pharmaceuticals should be reverse distributed to the pharmaceutical wholesaler or manufacture for credit.

12) Conclusion

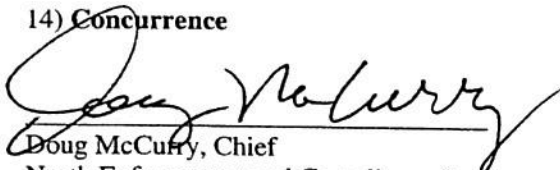
Upon conclusion of the inspection an exit interview was conducted in the presence of AKS Coke representatives. AKS Coke was inspected as a large quantity generator of hazardous waste and was not in compliance with the regulations cited above at the time of this inspection.

13) Signed

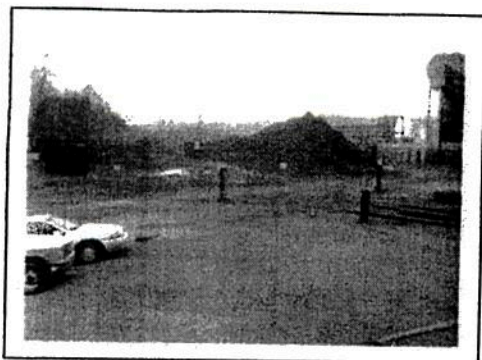

William Kappler
Environmental Scientist
North Enforcement and Compliance Section

5/4/05
Date

14) Concurrence


Doug McCurry, Chief
North Enforcement and Compliance Section
RCRA Enforcement and Compliance Branch

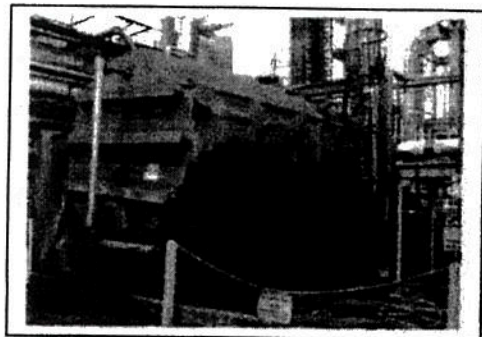
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Date



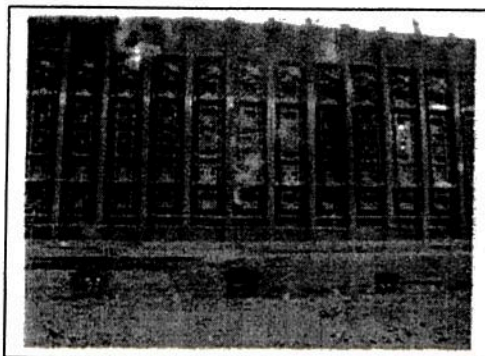
AK Steel Corp Coke Plant (AKS Coke).
12/16/04. 9:10am. Photograph 1. View of
coal piles. WK.



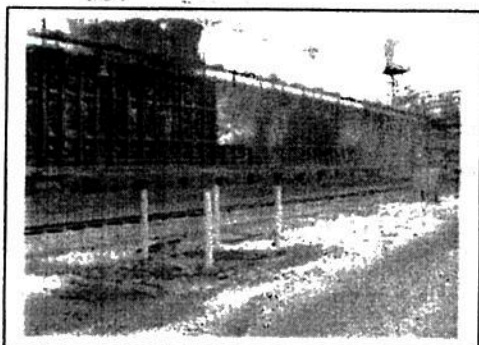
AKS Coke. 12/16/04. 9:10am. Photograph 2.
View of aboveground tank containing hazardous
waste. WK.



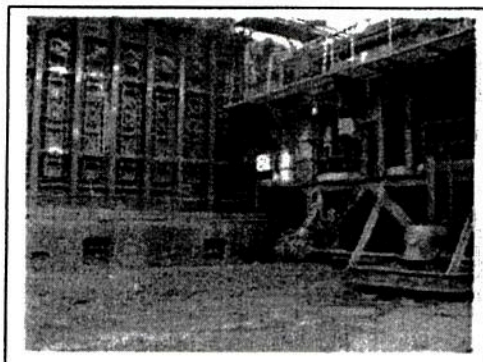
AKS Coke. 12/16/04. 9:10am. Photograph 3.
View of aboveground tank containing
hazardous waste. WK.



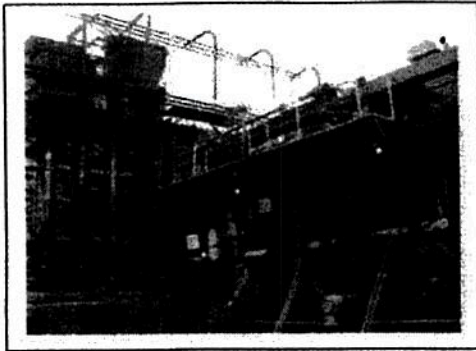
AKS Coke. 12/16/04. 9:10am. Photograph 4.
View of coke battery number 3. Observed a
visible release from the battery. WK.



AKS Coke. 12/16/04. 9:10am. Photograph 5.
View of coke battery number 3. Observed a
visible release from the battery. WK.



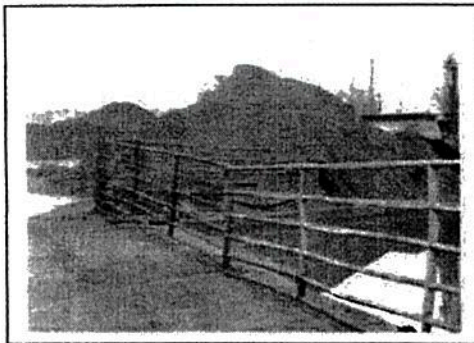
AKS Coke. 12/16/04. 9:10am. Photograph 6.
View of coke battery number 3. Observed a
visible release from the battery. WK.



AKS Coke. 12/16/04. 9:10am. Photograph 7.
View of coke battery number 3. WK.



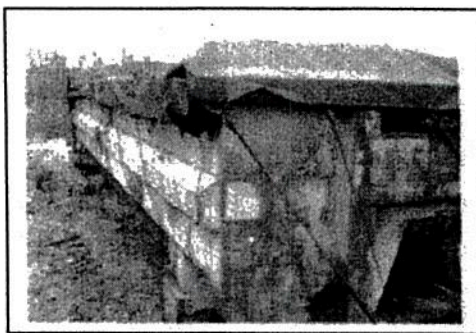
AKS Coke. 12/16/04. 9:10am. Photograph 8.
View of decanter sludge recycling area. WK.



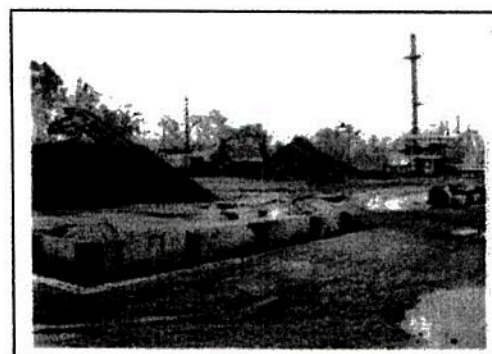
AKS Coke. 12/16/04. 9:10am. Photograph 9.
View of decanter sludge recycling area. WK.



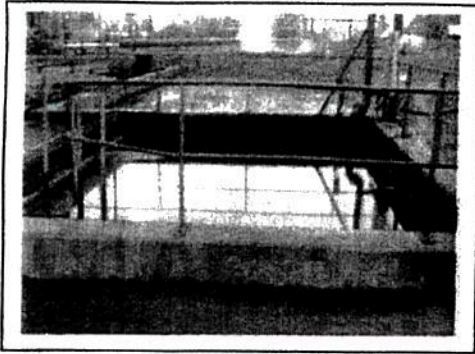
AKS Coke. 12/16/04. 9:10am. Photograph 10.
View of decanter sludge recycling area. WK.



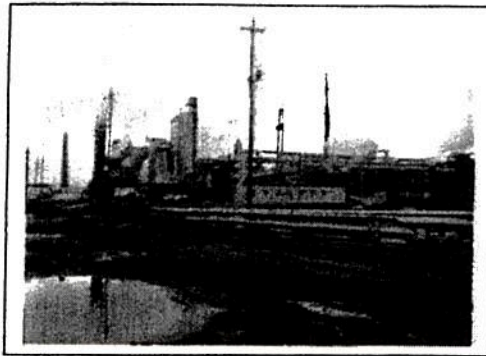
AKS Coke. 12/16/04. 9:10am. Photograph 11.
View of hazardous waste 90-day storage area
adjacent to decanter sludge recycling area. WK.



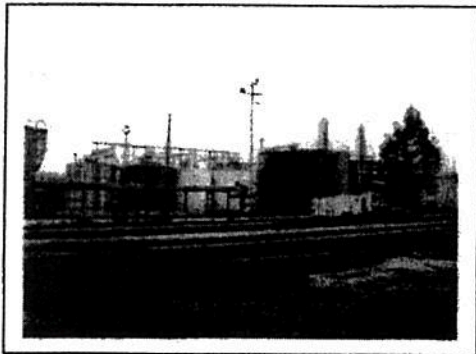
AKS Coke. 12/16/04. 9:10am. Photograph 12.
View of decanter sludge recycling area. WK.



AKS Coke. 12/16/04. 9:10am. Photograph 13.
View of waste water treat plant. WK.



AKS Coke. 12/16/04. 9:10am. Photograph 14.
View from the front of facility. WK.



AKS Coke. 12/16/04. 9:10am. Photograph 15.
View from the front of facility. WK.

4WD-RCRA

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Rick Massey
Manager Environmental Affairs
A.K. Steel Corporation - Coke Plant
P.O. Box 191
Ashland, Kentucky 41105-0191

SUBJ: Compliance Evaluation Inspection (CEI)
A.K. Steel Corporation - Coke Plant
EPA ID No. KYD 005 013 032

Dear Mr. Massey:

On November 16, 2004, the U.S. Environmental Protection Agency (EPA) and the Kentucky Department for Environmental Protection (KYDEP), conducted a Resource Conservation and Recovery Act (RCRA) CEI at A.K. Steel Corporation - Coke Plant, in Ashland, Kentucky, to determine its compliance status with RCRA. Enclosed is the EPA RCRA Inspection Report, which indicates that violations of RCRA were discovered. A copy of this report has also been forwarded to KYDEP.

If you have any questions regarding this matter, please contact William Kappler, of my staff, by phone at (404) 562-8498 or by e-mail at kappler.william@epa.gov.

Sincerely yours,

Doug McCurry, Chief
North Enforcement and Compliance Section
RCRA Enforcement and Compliance Branch

Enclosure

cc: R. Bruce Scott, KYDEP, Frankfort
Karen Glancy, KYDEP, Morehead

KAPPLER

5/4/05

MCCURRY

5/4/05